



**Wisconsin Society of  
Professional Engineers**

May 2, 2007

r.e. 2007 AB181 and AB69

Robb Peebles  
209 Yarrow Hill Dr  
Cottage Grove, WI 53527

The Honorable Mark Honadel  
Committee on Labor and Industry  
Wisconsin State Legislature

Dear Representative Honadel:

I am testifying at the public hearing regarding 2007 AB181 and AB69 on behalf of the Wisconsin Society of Professional Engineers (WSPE) as WSPE president. WSPE represents the licensed Professional Engineer in Wisconsin. Our mission is to promote the ethical, competent, and licensed practice of engineering, and to enhance the professional, social, and economic well being of our members.

WSPE is part of the National Society of Professional Engineers (NSPE) which is the recognized voice and advocate of licensed Professional Engineering in every state of the US and several territories. The first two canons of the profession's code of ethics are: 1) for engineers to Hold paramount the safety, health, and welfare of the public, and 2) for engineers to perform services only in areas of their competence.

Regarding Continuing Professional Competency, NSPE has adopted a Professional Policy stating:

*It is the policy of the National Society of Professional Engineers (NSPE) to endorse the efforts of the professional/technical societies, engineering schools, and industry in the areas of continuing education and to support mandatory continuing professional competency for engineers and land surveyors wherein such programs provide for uniformity and comity among licensing jurisdictions.*

*NSPE endorses the appropriate section of the National Council of Examiners for Engineering and Surveying (NCEES) Model rules for Continuing Professional Competence and urges its state societies to assist state licensure boards in implementing these rules. (Reference: NCEES Model Rules for Continuing Professional Competence)*

The Wisconsin Society of Professional Engineers Board of Directors has voted to endorse 2007 Assembly Bill 181. WSPE has not yet adopted a detailed position on rule implementation such as NSPE did in specifying the NCEES Model rules, but WSPE intends to provide input and guidance towards this and believes any rule decisions should come in large part from the people within the profession that WSPE represents.

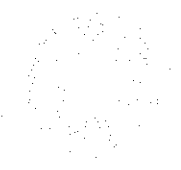
Regarding licensing requirements for professional engineers, the Wisconsin Society of Professional Engineers Board of Directors has also voted to endorse 2007 Assembly Bill 69.

Thank you.

Sincerely,

Robb Peebles, P.E.  
WSPE President

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STATE ENGINEERING ASSOCIATION

4510 REGENT STREET

MADISON, WISCONSIN 53705

(608) 233-4696

## **Testimony to the Assembly Committee on Labor and Industry**

### **AB 96 Continuing Education Requirements for Professional Engineers, and AB 181 Continuing Education for Architects, Landscape Architects, Professional Engineers, Designers of Engineering Systems, and Land Surveyors**

**May 2, 2007**

My name is Gretchen Wheat, a professional engineer registered in this state. I am also a member of the State Engineering Association which I am representing at this hearing. The State Engineering Association is the collective bargaining unit representing state employees in professional occupations related to engineering. The State Engineering Association is unique in several ways. It is the only independent bargaining unit in this state, and is operated by the association membership.

The State Engineering Association is not opposed to the addition of a continuing education requirement to maintain an engineering related professional license. Such requirements are widely recognized to ensure ongoing and improved expertise.

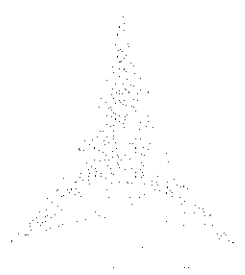
However, the State Engineering Association seeks your support to ensure the state will fulfill its corresponding role as an employer by providing adequate funding to pay for continuing education for state engineering related positions.

In this regard, the state currently provides a variety of in-house employee training opportunities, certain of which address engineering topics. But, in-house technical courses are not uniformly provided among state agencies, and training budgets overall have been significantly reduced in all state agencies in recent years. In addition, in-house training does not normally include accredited courses suitable for maintenance of a professional license.

Particularly if continuing education is added to engineering related professional credentials, the State Engineering Association believes the state may need to modify in-house training programs to meet the professional continuing education standard.

Regardless of how the state elects to ensure that its engineering professionals receive necessary continuing education, the bottom line is that it will cost money. It is not appropriate to cover the increased training costs with compensation reserve funds, thereby reducing potential future wage increases to employees. Without funding for state engineering employee training, this bill will amount to an unfunded mandate.

I appreciate being able to share these concerns with you. Please contact us if you have questions about these comments, or would like to discuss these issues further.



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# MARK GOTTLIEB

Speaker Pro Tempore  
Wisconsin State Assembly

**Testimony of Rep. Mark Gottlieb  
Assembly Bill 69  
Assembly Committee on labor and Industry  
May 2, 2007**

Chairman Honadel and Members:

Thank you for holding this public hearing on Assembly Bill 69 (AB 69), relating to registration requirements for professional engineers.

At the request of the Professional Engineers Section of the Examining Board of Architects, Landscape Architects, Professional Engineers, Designers and Land Surveyors in the Wisconsin Department of Regulation and Licensing, I introduced AB 69 to make several changes to the licensure requirements for professional engineers.

Under current law, a person can obtain registration as a professional engineer either by completing an approved four-year college program and having a specific amount of additional experience, or by experience only, without a degree from an approved four-year college program. This bill removes the ability to obtain registration through experience only, thus requiring every applicant to have a degree from an approved four-year college program, as well as four additional years of experience.

Additionally, current law requires that all applicants for registration as a professional engineer complete a written examination on the skills required to practice engineering, except that an applicant with a degree from an approved four-year college program who has eight years experience is not required to take the examination. This bill eliminates that exemption, thus requiring every applicant to complete the written examination.

The Examining Board believes these changes are warranted because they are witnessing an ever-increasing number of applicants who are opting to secure their professional engineer registration using the work experience path. However, this "experience path" does not meet the higher standards, such as a mandatory examination, that are being established in the vast majority of states in the nation – making our engineers less competitive in the global market place. Additionally, applicants who fail the examination routinely use the "experience path" as their means to obtain their registration. The Board strongly suggests that this loophole needs to be closed to maintain the integrity of Wisconsin's professional engineering licensure application process.

**STATE REPRESENTATIVE • 60<sup>TH</sup> DISTRICT**



In short, Assembly Bill 69 standardizes the requirements for obtaining registration as a professional engineer by requiring every applicant to have an appropriate college degree, show competency by completing an examination, and have four additional years of appropriate experience. I respectfully ask that the members of this committee support and take executive action on Assembly Bill 69.

Thank you for the opportunity to testify before you today.





**Testimony**

Assembly

**PUBLIC HEARING**

Committee on Labor and Industry

Wednesday, May 2, 2007

11:00 AM

225 Northwest

State Capitol

Assembly Bill 69

Martin J. Hanson, PE

Joint Board of Architects, Landscape Architects,

Professional Engineers, Designers & Land Surveyors--Chairman

Professional Engineers Section--Chairman

Chairman Honadel and honorable members of the Wisconsin Assembly Committee on Labor and Industry:

**Committee on Labor and Industry**

Representative Honadel, chair

Representative Gottlieb, vice-chair

Representatives Nass, Wieckert, Newcomer, Murtha, Nelson,

Sheridan and Van Akkeren, members

I am sorry that I am unable to appear before you today in person to present testimony and be able to answer your questions. When I was informed of the hearing date, I already had commitments in Florida at the time of this hearing that I was unable to change. I have asked Mr. Charles Kopplin, PE, professional engineer member of the Joint Board and Engineers Section, to present my testimony to you. Please consider my testimony below, and I would be happy to supply answers to your questions or the committee's questions in writing at your convenience.

I am presenting testimony on behalf of the Wisconsin Joint Board of Architects, Landscape Architects, Professional Engineers, Designers & Land Surveyors, where I am chairman, and the Engineers Section of the Joint Board, where I am also chairman; both boards have authorized me to speak on behalf of the respective body. I would like to thank the chairman for scheduling the hearing on this important legislation, and I would like to thank Representative Gottlieb for his work on this bill. Today, I intend to provide testimony on this legislation to inform and answer your questions to convey the purpose behind the changes included in Assembly Bill 69.

I am pleased that Representative Gottlieb has introduced this bill. I have been working on some of these changes since I was first appointed to the board five years ago. This legislation is



strongly supported by the Engineers Section and is likewise strongly supported by the Joint Board of Architects, Landscape Architects, Professional Engineers, Designers & Land Surveyors.

I am also happy to report that this bill has received the support of the Wisconsin Society of Professional Engineers (WSPE), and the American Council of Engineering Companies of Wisconsin (ACEC WI). The American Society of Civil Engineers (ASCE), Wisconsin Section members generally support AB 69, including the Region 3 Director. AB 69 is consistent with ASCE's policies and recommendations on professional competence as those policies include and endorse written examination requirements. The bill has been discussed by the Alliance for Technical Professions, a consortium of engineering professionals and affiliated groups interested in legislation and rule making, and how both affect the public health, safety, and welfare. I have also received letters and phone calls in support of this bill from my many associates in the industry.

This bill does three simple things. First, it streamlines the licensure process for engineers; second, it eliminates the review of examinations; and thirdly, it eliminates the statutory need for testing in a specific area. All of these changes in the statutes for professional engineers and are long overdue. I will address each change separately.

#### **STREAMLINING LICENSURE**

The current path to licensure in Wisconsin is very complex. There are numerous paths and branches as shown in Exhibit 1 from the Wisconsin Department of Regulation and Licensing web site.





1. Obtain an engineering degree from an ABET or Board approved institution
2. Pass the 8-hour Fundamentals of Engineering exam (national exam)
3. Obtain 4 years of qualifying engineering experience
4. Pass the 8-hour Principles and Practice exam (national exam)

This path, and all other paths in the current law, are repealed by Assembly Bill 69. Applicants will all have a consistent and standardized path to licensure. The Board will evaluate each candidate against the same criteria.



Examinations by themselves do not ensure the competency of any engineer. But we believe the exam is a far better and more consistent measure than a subject review of a resume of experience.

Professional Engineers who obtain their license in Wisconsin by this "grandfather" clause are severely disadvantaged in other states when applying for licensure by comity. Most states do not recognize or accept the Wisconsin license granted by experience because it was not obtained by the more common examination path. Wisconsin professional engineers typically must take the Principles and Practice exam in the state they wish to practice in. Requiring all Wisconsin engineers to obtain licensure by examination will make it easier for them to obtain licenses in other states where they may be working on projects. This will provide more opportunities for Wisconsin professional engineers.

This new legislation should be enacted immediately, and there should be no phase-in of the new process. The Engineer Section predominately sees applications for licensure in this path in two scenarios.

#### *Applicants who Fail to Pass Principles and Practice Exam*

We have seen a number of applicants who have failed the Principals and Practice examination, once or several times, simply wait an additional four years and re-apply under the "grandfather" clause. Some of these applicants will even state in their application that they are applying because they have failed the exam. Furthermore, some of those who have been denied licensure under the "grandfather" clause, on appeal during their hearing freely state that they don't want to take the exam or believe they cannot pass the exam. The "grandfather" path is unquestionably the easier path to licensure. It is also the most subjective and therefore we believe an inappropriate process to grant a professional engineer license. The board should have evidence sufficient to support a strong recommendation for licensure for all applicants who are granted a license to practice. We can only have this sufficient evidence by having consistent criteria to measure against. We believe the criteria should be the ability to pass the Principal and Practice examination. The inability of an applicant to pass the exam raises some doubt as to their competence, regardless of the applicant's experience.

#### *Applicants from out-of-state*

We are seeing an increase in the number of applicants under the "grandfather" clause who are residents of states other than Wisconsin. This is because Wisconsin may be the only state that still has this experience path to licensure. Our lower application and renewal fees also make Wisconsin an attractive state to obtain licensure. Many of these applicants have significantly more experience than the required eight years. These are typically persons who are looking to simply add a credential to their resume for compensation, status, or other reasons outside the interests of the objective of licensure. Granting licenses in this manner is not within our mission to protect public health safety and welfare and extends our intended jurisdictional reach far beyond the borders of Wisconsin. We believe this to be an inappropriate use of our resources and not a good path to a professional credential.

It is not surprising that engineers in the industry across the country generally regard those who have obtained licensure by examination to have met a higher standard than those who have obtained the credential by experience only.

THE UNIVERSITY OF CHICAGO  
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REPORT OF THE  
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OF THE DIVISION OF THE PHYSICAL SCIENCES

PRESENTED TO THE BOARD OF THE UNIVERSITY OF CHICAGO  
IN 1964

BY THE COMMISSION ON THE ORGANIZATION  
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## EXAM REVIEW

This bill eliminates the opportunity for an applicant to review their incorrect answers to exam questions.

The tests we use for Fundamentals of Engineering and Principles and Practice are developed by The National Council of Examiners for Engineering and Surveying (NCEES) and are used across the country. An enormous amount of effort goes into developing the test question bank. The questions are tested for ambiguity, accuracy, and other measure to ensure they are a fair and objective measure of breadth and depth of knowledge. To facilitate testing and scoring, these tests are now multiple choice and machine scored.

The existing legislation was enacted when the examinations were written long-hand. Applicants would develop the solution on paper and submit their answers with supporting logic and calculations. These questions were then graded, and partial credit was granted appropriate to the correctness of the solution strategy contained in the applicant's presentation. In this method of examination, it was logical to allow an opportunity for the applicant to review his or her answer and potentially appeal for additional partial credit.

Multiple choice questions with single unique correct answers eliminate the opportunity to score any partial credit and therefore eliminate any need for post-exam review. Currently if an applicant requests to review a question, we have to seek approval from NCEES and have a board member present during the review. The applicant is shown the question text, the answer choices, and his or her answer. The applicant is NOT shown the correct answer. An unscrupulous applicant could review multiple questions in multiple exam administrations, all for the purpose of harvesting questions for either his or her own benefit (some questions are repeated in each administration of the exam to measure exam difficulty and consistency) or for unauthorized and illegal distribution and/or sale of test questions.

NCEES is concerned, and rightly so, about the security of the exam questions. There is considerable time and money expended in the development and maintenance of the test bank. To allow post-exam review of questions opens the state of Wisconsin to the risk of exam security breach. NCEES has indicated it may hold states liable for the cost of development and testing of replacement questions where the state's process did not ensure the security of the exam.

We believe that there is no real purpose for reviewing exam questions in the current format, and we want to reduce the risk to the state of Wisconsin for defense of any claims against the state by NCEES or breach of exam questions. In addition, the Department of Revenue and Licensing and the board can use their time more wisely in tasks other than proctoring an applicant's review of test questions.

## SPECIFIC AREA TESTING

The current statute contains language requiring the examination to "include questions which require applicants to demonstrate knowledge of the design needs of people with physical disabilities and of the relevant statutes and codes."

This legislation was likely enacted in the spirit of Americans' with Disabilities Act implemented in 1973 and 1990. The intent was logically to raise awareness among newly licensed engineers of the changes to codes and design standards dealing with people with physical disabilities.



The need to specifically test for this attribute no longer exists. The International Building Code has been adopted by many states and local governments. This document, over 700 pages, is revised every three years. It contains a section on Accessibility, defining the term as the accommodation of disabled persons in structure. This includes parking spaces, elevators, and restrooms. Local governments may pass ordinances to supplement these requirements. There are extensive resources available to design professionals dealing with the Americans with Disabilities Act including the ADA.gov website.

We believe that the design professions and educators have been working within the requirements of ADA for more than 30 years, and it has become the standard of practice. The examination prepared by NCEES contains information on all subjects that will include ADA impacts where appropriate. Having the statute refer to a specific test area requires the state to prepare and administer these questions separately from the national exam—an additional burden of state resources with no corresponding benefit to the public.

I want to assure the committee that the removal of this language and requirement in no way whatsoever is intended to diminish the need for design professionals to work within design statutes, codes, and ordinances to accommodate the needs of those with physical disabilities. My uncle, an Architect for years in Arizona, was a polio victim and was confined to a wheelchair for most of his practicing years; I am indeed deeply sensitized to this issue. I again assure the committee that the removal of this requirement does not change the methods and practices of design professionals with regard to accommodations and accessibility issues for persons with disabilities.

We believe that it is no longer necessary to have the statutes specially call out areas for questions in the examination. To do so raises questions about other technical areas that should be considered to be included in the examination. The board has confidence in the national exams prepared by NCEES to achieve an appropriate breadth and depth of questions. This is a difficult exam and requires substantial serious preparation as demonstrated by the overall 54% pass rate in Wisconsin (first-time takers have a higher pass rate of 74%).

Mr. Chairman, in summary, the Engineer Section of the Joint board and the Joint Board strongly support Assembly Bill 69 and urge its passage at the earliest opportunity.

This bill is needed to update the statutes regarding professional engineers. We need to have all engineers measured against the same standard to ensure the protection of public health, safety, and welfare, and we need to make Wisconsin engineers competitive in the national economy.

We need to eliminate the opportunity for applicants to review test questions—this practice is outdated and no longer serves any real purpose. It does subject the state to a risk of liability for breaches of exam security.

Finally, we can eliminate the statute requirement for single, specialized topics because it also has outlived its purpose.

Thank you again for the opportunity to testify today. I appreciate your consideration of this matter.

I would be happy to answer any questions that may remain from the committee.



/s/Martin J. Hanson

Martin J. Hanson, PE





AMERICAN COUNCIL OF ENGINEERING COMPANIES  
of Wisconsin

The American Council of Engineering Companies of Wisconsin

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*the business voice of the Wisconsin consulting engineering industry*

May 1, 2007

Representative Mark Honadel  
Wisconsin State Assembly  
P O Box 8952  
Madison, WI 53708

RE: AB 69 – Registration Requirements for Professional Engineers

Dear Representative Honadel and Members of the Assembly Labor and Industry Committee:

ACEC WI supports AB 69, which changes the registration requirements for professional engineers.

We believe a professional engineer must obtain a degree from an institution approved by the registration board, pass the Fundamentals Exam, obtain a minimum of 4 years of experience acceptable to the registration board, and pass the Principles and Practice Exam. Current law is subjective and this bill would simplify and make the criteria for licensure the same for all applicants.

The current test is standardized. Allowing review of the answers by applicants who have failed the exam is inappropriate and subjects the state to potential liability for exam security. This legislation repeals the opportunity for applicants to review the test questions they missed.

On January 29<sup>th</sup> of this year, the ACEC WI Board of Directors voted unanimously to support this legislation and we urge the committee to pass AB 69. On behalf of the professional engineers who are employed by our members firms, thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carol Godiksen", written in dark ink.

Carol Godiksen  
Executive Director

